

Amendments to the Claims:

Rewrite the claims as set forth below. This listing of claims replaces all prior versions and listings of claims in the application:

Listing of the Claims

1. (currently amended) A method for nested control flow, the method comprising:
setting a context bit to at least one of: a first state and a second state;
receiving a first instruction having a plurality of extra bits;
reading the context bit based on the plurality of extra bits, wherein the context bit is independent of the first instruction having a plurality of extra bits; and
executing the instruction when the context bit is in the first state.
2. (previously presented) The method of claim 1 further comprising:
maintaining a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state.
3. (previously presented) The method of claim 2 wherein the counter value is stored in a non-dedicated memory device.
4. (original) The method of claim 3 wherein the non-dedicated memory device is a general purpose register.
5. (previously presented) The method of claim 2 further comprising:
prior to setting the context bits, resetting the counter value.
6. (previously presented) The method of claim 2 further comprising:
receiving a second instruction having a plurality of extra bits;
reading the context bit based on the plurality of extra bits;

executing the second instruction when the context bit is in the first state; and
maintaining the counter value.

7. (previously presented) The method of claim 6 further comprising:

exiting a nested control flow using the counter value.

8. (currently amended) An apparatus for nested control flow, the apparatus comprising:

a processor having a context bit memory device capable of storing a context bit;

a first memory device storing a plurality of instructions, wherein each of the plurality of instructions includes a plurality of extra bits, wherein the context bit is independent of the plurality of instructions including a plurality of extra bits, and wherein the processor is operative to execute the plurality of instructions; and

a second memory device operably coupled to the processor, and wherein the second memory device receives an incrementing counter instruction upon the execution of one of the plurality of instructions.

9. (cancelled)

10. (original) The apparatus of claim 8 wherein the second memory device is a general purpose register.

11. (previously presented) The apparatus of claim 8 wherein the processor:
receives a first instruction having a plurality of extra bits from the first memory device;
and
reads the context bit based on the plurality of extra bits.

12. (previously presented) The apparatus of claim 11 wherein the processor:

executes the first instruction when the context bit is read and is in a first state; and
maintains a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state, using the incrementing counter instruction.

13. (previously presented) The apparatus of claim 12 wherein the processor:
receives a second instruction having a plurality of extra bits from the first memory device;
reads the context bit based on the plurality of extra bits;
executes the second instruction when the context bit is in a first state; and
increments the counter value using the incrementing counter instruction.

14. (currently amended) A graphics processing device comprising:
a plurality of arithmetic logic units, each of the plurality of arithmetic logic units having a context bit memory device capable of storing a context bit;
a first memory device storing a plurality of instructions, wherein each of the plurality of instructions includes a plurality of extra bits, wherein the context bit is independent of the plurality of instructions including a plurality of extra bits, and wherein the arithmetic logic units are operative to execute the plurality of instructions; and
a second memory device operably coupled to the processor, wherein the second memory device receives an incrementing counter instruction upon the execution of one of the plurality of instructions.

15. (original) The graphics processing device of claim 14 wherein the second memory device is a general purpose register.

16. (previously presented) The graphics processing device of claim 14 wherein each of the plurality of arithmetic logic units:

receive at least one of the plurality of instructions; and
reads the context bit based on the plurality of extra bits.

17. (previously presented) The graphics processing device of claim 16 wherein the plurality of arithmetic logic units:

execute the instructions when the context bit is read and is in a first state; and
maintains a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state, using the incrementing counter instruction.

18. (previously presented) The graphics processing device of claim 17 wherein the plurality of arithmetic logic units are operative to exit a nested control flow using the context bit stored in the second memory device.

19. (currently amended) A method for nested control flow, the method comprising:
setting a context bit to at least one of: a first state and a second state;
receiving a first instruction having a plurality of extra bits;
reading the context bit based on the plurality of extra bits, wherein the context bit is independent of the first instruction having a plurality of extra bits;
executing the first instruction when the context bit is in the first state; and
upon the executing of the first instruction, maintaining a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state in a general purpose register.

20. (previously presented) The method of claim 19 further comprising:
receiving a second instruction having a plurality of extra bits;
reading the context bit based on the plurality of extra bits;
executing the second instruction when the context bit is in the first state; and

incrementing the counter value.

21. (previously presented) The method of claim 20 further comprising:

exiting a nested control flow using the counter value.